

### REMARKS

In the Office Action dated March 3, 2011, the Examiner rejects claims 1, 12-14, 17 and 21-24 under 35 U.S.C. §112, first and second paragraphs, and rejects claims 1, 3-15, 17, 18 and 21-24 under 35 U.S.C. §103(a). With this Amendment, Applicants have amended claims 1, 13-15, 17 and 21-24. After entry of this Amendment, claims 1, 3-15, 17, 18 and 21-24 remain pending in the Application. Reconsideration of the Application as amended is respectfully requested.

#### *Response to rejections under 35 U.S.C. §112*

The Examiner rejects claims 1, 12-14, 17 and 21-24 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner states that these claims contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Applicants have amended claims 1, 13, 14 and 17 to recite the embodiment shown in FIG. 2 and detailed in paragraphs [0042]-[0047]. Applicants submit the claims comply with the written description and the rejection is overcome.

Applicants have amended claims 12 and 21-24 to recite "insulant" rather than "conductive sealing material." Explicit support is found in FIG. 2 and paragraphs [0043]-[0046]. Applicants submit that the claims comply with the written description requirement, and the rejection is overcome.

The Examiner rejects claims 1, 13, 14 and 17 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Applicants have amended claims 1, 13, 14 and 17 to separately recite the negative-electrode layer, the electrolyte layer and the positive-electrode layer rather than "the layers." Applicants submit the rejection is overcome.

*Response to rejections under 35 U.S.C. §103*

The Examiner rejects claims 1, 3, 5, 11-15, 17 and 21-24 under 35 U.S.C. §103(a) as being unpatentable over Nagayama et al. (US 2005/0208347 A1).

Each of independent claims 1, 13-15 and 17 recite a discharge circuit printed in the electrolyte layer within each electric cell. Nagayama et al. does not teach or suggest this. Nagayama et al. teaches a diode 35 formed on a collector 22B (in all figures) and separated from the electrolyte layer 27, as well as from the negative and positive active materials 26, 28, by sealing part 25. (FIGS. 4, 9 and 10). This does not fall within the scope of the claimed subject matter.

Each of independent claims 1, 13-15 and 17 recite a first pair of conductive bodies located in the electrolyte layer, wherein one of the first pair is in contact with one side of the discharge circuit and another of the first pair is in contact with an opposing side of the discharge circuit. The Examiner contends that the first pair of conductive bodies is represented by metal layer 34 of Nagayama et al. As clearly shown in FIGS. 4, 9 and 10, these metal layers are stacked on the collector 22B and separated from the electrolyte layer by sealing part 25. (§10036)). This does not fall within the scope of the claimed subject matter.

Each of independent claims 1, 13-15 and 17 recite a second pair of conductive bodies, wherein one of the second pair of conductive bodies is in the negative-electrode layer and another of the second pair is in the positive electrode layer such that each of the second pair of conductive bodies is vertically aligned with a different one of the first pair of conductive bodies when the negative-electrode layer, the electrolyte layer and the positive-electrode layer are stacked. The Examiner contends that metal layers 34 are also the second pair of conductive layers. Assuming *arguendo* that layers 34 were also the second pair, each of the second pair of conductive bodies being vertically aligned with a different one of the first pair of conductive bodies is not shown by the structure of Nagayama et al.

Furthermore, the claim requires one of the second pair to be in the negative electrode layer and the other to be in the positive electrode layer. In Nagayama et al., the diodes are formed on a forming region of the current collector 22B and are separated by the positive and

negative electrode layers by sealing part 25. Furthermore, only adhesive agent layer 36 is across the sealing part from the positive electrode layer 28.

Because Nagayama et al. fails to teach or suggest at least these elements recited in the independent claims 1, 13-15 and 17, these claims and those that depend therefrom are not rendered obvious by Nagayama et al.

In addition to their dependency, claims 12 and 21-25 recite an insulant provided on the periphery of the negative and positive electrode layers and the electrolyte layer. The Examiner contends that Nagayama et al. discloses a sealing material 36 that is within the scope of the claim language. However, electrically conducting adhesive agent layer 36 is not an insulant (see element 206 in the present application) and is also not located on the periphery of each of the named layers. Accordingly, Nagayama et al. fails to render these claims obvious.

The Examiner rejects claim 4 under 35 U.S.C. §103(a) as being unpatentable over Nagayama et al. as applied to claim 1 above, and further in view of Einthoven et al. (US 2003/0205775 A1).

Claim 4 depends from claim 1 to include all of the limitations therein. As explained above, Nagayama et al. fails to teach or suggest at least the elements of claim 1. Einthoven et al. also does not teach or suggest the elements recited above. Accordingly, the combination of the two fails to suggest to one skilled in the art the subject matter of claim 1 and claim 4 by at least its dependency. Applicants submit that claim 4 is not rendered obvious by the cited combination, and claim 4 is allowable over the cited references.

The Examiner rejects claims 6-10 and 18 under 35 U.S.C. §103(a) as being unpatentable over Nagayama et al. as applied to claim 1 above, and further in view of Horie et al. (US 2001/0019794). Claims 6-10 and 18 depend from claim 1 to include all of the limitations therein. As explained above, Nagayama et al. fails to teach or suggest at least the elements of claim 1. Horie et al. also does not teach or suggest the conductive bodies as recited in claim 1.

Accordingly, the combination of the two references fails to suggest to one skilled in the art the subject matter of claim 1 and its dependent claims. Due at least to their dependency on claim 1, the subject matter of claims 6-10 and 18 is not rendered obvious by the cited combination. Thus, claims 6-10 and 18 are allowable over the cited references.

*Conclusion*

It is submitted that this Amendment has antecedent basis in the Application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the Application as amended is requested. It is respectfully submitted that this Amendment places the Application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present Application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,  
YOUNG BASILE  
HANLON & MACFARLANE P.C.



Francine B. Nesti  
Registration No. 53376  
(248) 649-3333

3001 West Big Beaver Rd., Ste. 624  
Troy, Michigan 48084-3107